

Using Eye Tracking to Measure the Impact of Persuasion Principles in Phishing Emails

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Abstract : Phishing emails are a form of social engineering where attackers deceive email users into revealing sensitive information or installing malware such as ransomware. Scammers often use persuasion techniques to influence email users to interact with malicious content. This study will use eye-tracking equipment to analyze how participants respond to and process Cialdini's persuasion principles when utilized within phishing emails. Eye tracking provides insights into what is happening on the subconscious level of the brain that the participant may not be aware of. An experiment is conducted to track participant eye movements, whilst interacting with and then filing a series of persuasive emails delivered at random. Eye tracking metrics will be analyzed in relation to whether a malicious email has been identified as phishing (filed as 'suspicious') or not phishing (filed in any other folder). This will help determine the most influential persuasion techniques and those 'areas of interest' within an email that require intervention. The results will aid further research on how to reduce the effects of persuasion on human decision-making when interacting with phishing emails.

Keywords : cybersecurity, human-centric, phishing, psychology

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